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magnetic technologies & systems

Overview about different types of MO-sensor curves

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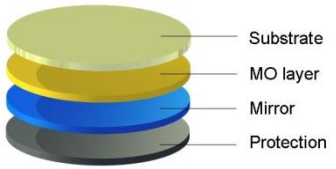
Overview about different types of MO-sensors

Type	Measuring range at RT (kA/m)	Base	Typical applications / materials
A	0.05 to 2.0	1 inch	Magnetic stripe cards, hard magnetic inks (banknotes), steel alloys (material testing), magnetic tapes (audio tape manipulation testing), minerals (thin sections)
B	0.05 to 30.0	1 inch, 3 inch	Magnetic stripe cards, polymer bounded permanent magnets (material testing), magnetic tapes (audio tape manipulation testing), domain material (magnetic shape memory)
C	0.05 to 160	1 inch	Magnetic encoders, dipol- and multipol permanent magnets and polymer bounded magnets and foils
D	0.03 to 5.0 (special for Bias)	1 inch	Printed magnetic inks (documents, banknotes testing) and magnetizable steels alloys (car serial numbers testing)



Sensor geometries (mm)

Thickness	0.5
Diameter	25.4, 76.2
Rectangle*	8 x 8, 17 x 8, 15 x 20
Array	customized up to 100 x 100

Special sensor geometries on request

Sensor characteristics

Resistance to temperature changes	+10 to +50 °C
Working temperature range	+15 to +30 °C
Optical transmission range	λ > 530 nm
Optical resolution	1 to 25 µm
Faraday rotation angle (λ=590nm)	1 to 10°

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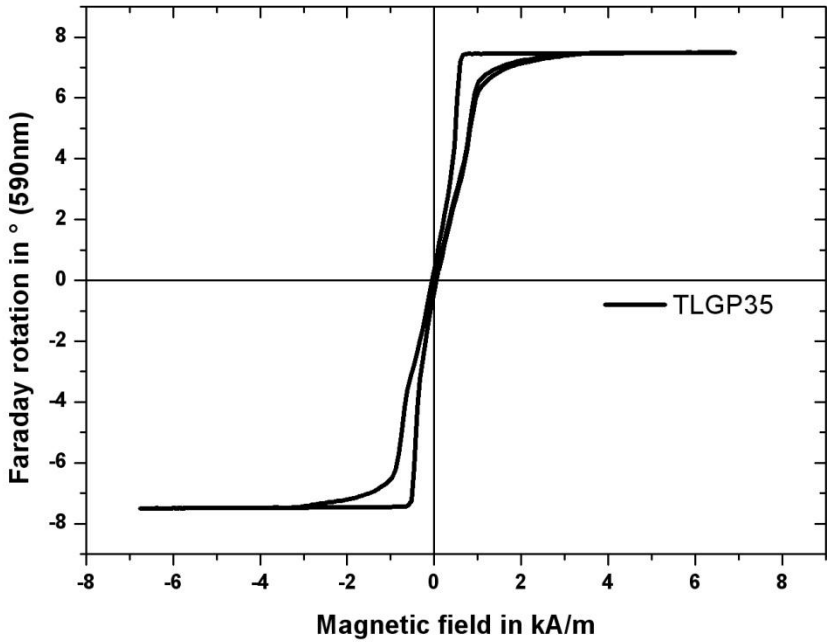
Type A

Low dynamic field range
Highest MO-sensitivity

Application:
- Debit cards
- Banknotes



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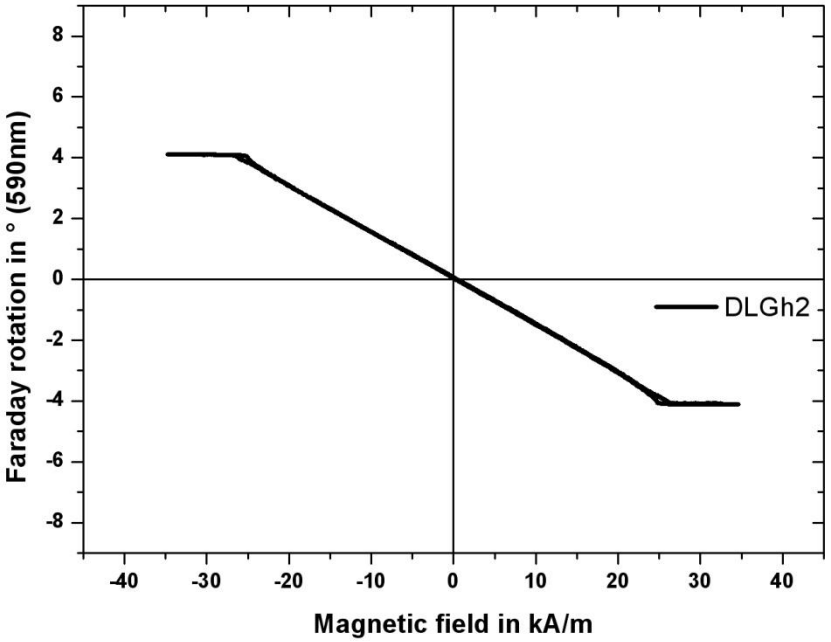
Type B

Moderate dynamic field range
Moderate MO-sensitivity

Application:
- Control of polymer-bonded permanent Magnets (encoders)



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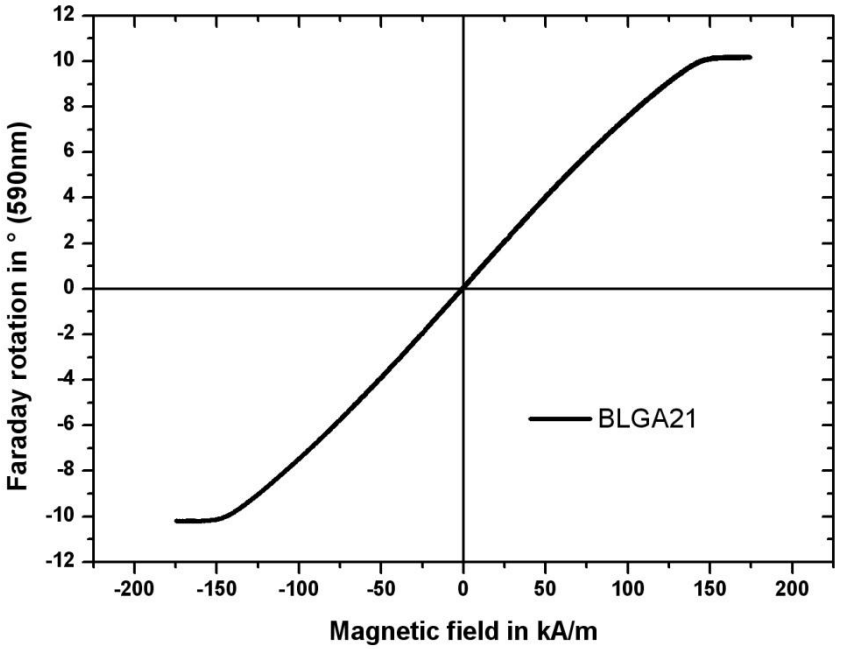
Type C

High dynamic field range
Low MO-sensitivity

Application:
- Control of permanent magnets



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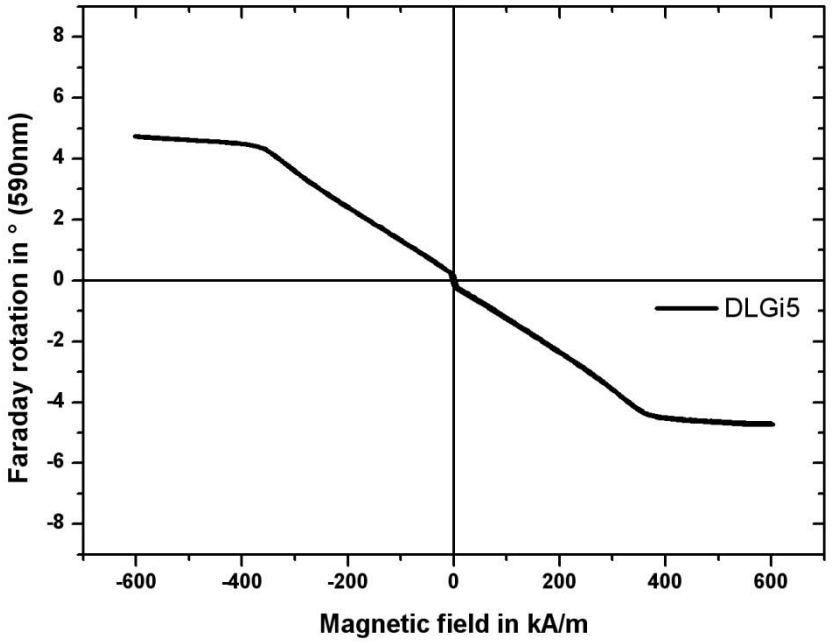
Type C2

Highest dynamic field range
Low MO-sensitivity

Application:
- Control of permanent magnets (e.g. NdFeB)



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Type D

Low dynamic field range
High MO-sensitivity

Application:
-Debit cards
-Bias field application
-softmagnetics